

Removable aligners to correct rotation

Brenda Nishimura introduces a classic Inman Aligner solved case

Dr Brenda Nishimura

Principal dentist of Lexington Dental Care, Massachusetts, United States



The patient is a 56-year-old female that presented to the practice to discuss possible treatment options for improving the appearance of her anterior teeth. While her medical history revealed that she had anaemia as well as possible sleep apnoea, her dental history was clear.

Biomechanical, periodontal, functional and aesthetic assessment

During the clinical assessment, the patient's biomechanical risk was found to be moderate with several restored teeth. However, there were no signs of active decay or root canal therapy.

Periodontally, there was sound support for the teeth with no bone loss, inflammation or bleeding on probing. When asked about functionality, the patient reported normal function when chewing and did not complain of feeling more than one bite. Furthermore, there were no signs of temporomandibular joint disorders (TMD).

Aesthetically, she presented as high risk due to a high smile line. When smiling, the patient revealed all tooth structure and up to 6mm of the gingival complex. The patient had no prior history of orthodontic treatment. The tooth position before treatment involved rotation, facial inclination of the anterior teeth and crowding.

Treatment planning

The treatment goal was to align the anterior teeth without changing the bite. After discussing various treatment pathways, the patient opted for the Clearsmile Inman Aligner for both the upper and lower arches. Thereafter, IAS Academy's Spacewize+ digital crowding calculator software was used to establish suitability of treatment, before using Archwize 3D planning software to predict the interproximal reduction (IPR) that would be needed to achieve the intended result. The results showed that a total of 0.30mm IPR was required.

Treatment

Throughout the treatment process, the patient was reviewed every two to three weeks to ensure that the

correct progress was being made. After alignment of the teeth, tooth whitening was carried out to achieve the patient's desired colour, and finally the front teeth were bonded to repair unevenly worn edges on the anteriors.

Critical appraisal

The patient was thrilled with the treatment outcome. She felt the procedure was relatively painless, fast and less expensive than other anterior alignment orthodontic options or traditional fixed braces. In addition, the patient was happy that treatment could be staged to make it more affordable for her.

I was also very pleased with the final outcome from a clinical perspective. I feel that the Clearsmile Inman aligner



Figure 1: Pre treatment smile



Figure 2: Pre treatment right lateral



Figure 3: Pre treatment left lateral



Figure 4: Pre treatment upper occlusal



Figure 5: Pre treatment lower occlusal



Figure 6: Post alignment treatment



Figure 7: Post tooth whitening



Figure 8: Post aligning, bleaching and bonding



Figure 9: Post treatment upper occlusal

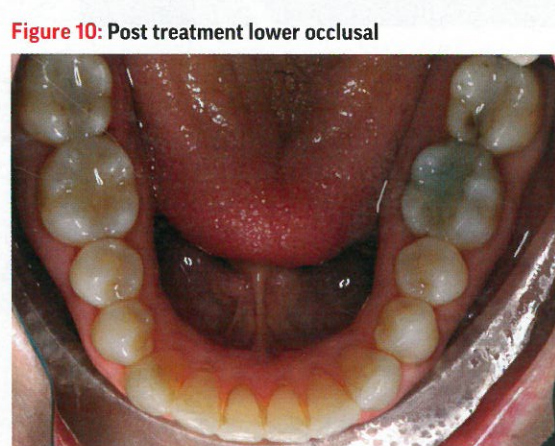


Figure 10: Post treatment lower occlusal

Appointment	Progress
29/2/16	• Impression taken for Clearsmile Inman Aligner.
31/3/16	• Upper Clearsmile Inman Aligner fitted • 0.3mm of IPR performed • Patient advised to wear appliance for approximately 20 hours per day, and given dietary and oral health advice • Composite anchors were placed facially on the UR1 and lingually on UL2.
13/4/16	• Progress reviewed and composite anchor removed from UR1.
27/4/16	• Minor IPR performed.
12/5/16	• Composite anchor replaced on UR1.
26/5/16	• Progress reviewed.
14/6/16	• Progress reviewed – further rotation was needed on UL1 and UR1, otherwise almost there.
13/7/16	• Patient now using upper Clearsmile Inman Aligner as a retainer as alignment was complete.
2/8/16	• Lower Clearsmile Inman Aligner inserted • IPR carried out distally on canines and a little between incisors • Composite anchor placed on LR2 lingually.
18/8/16	• Review – no more IPR required.
8/11/16	• Alignment complete • Impression taken for whitening trays.

is a preferable option to the various other appliances as it does not alter the bite or trigger any TMD symptoms. In the past, I have observed that an open bite between the posterior teeth can occur with other appliances, since they cover the occlusal surfaces of the posterior teeth. If patients clench on the appliances, they may intrude the posterior teeth, creating a posterior open bite. The alignment of the teeth, using the Clearsmile Inman Aligner in this case, went smoothly with minimal IPR. The appointments were brief and simple. The lab costs were also reasonable, allowing me to provide this treatment to patients that could not afford more costly orthodontic treatments. **D**

FOR MORE INFORMATION on the Clearsmile IAS Inman Aligner and upcoming training courses, please visit www.iasortho.com or call 0845 366 5477.